

Substitute Water Treatments Hydrogen peroxide (H₂O₂) destroys infectious organisms and impurities in water 4,000 times better than chlorine.⁵⁶ "A 35-percent technical grade H₂O₂ will promote bacterial growth to break down sewage and enhance the dissolved oxygen level in discharge water entering lakes and streams." Ozone (O₃) treatment is equally effective. Worldwide, 1,100 cities treat their drinking water with ozone; many have done so since as early as 1901. Los Angeles treats its drinking water with H₂O₂, and then adds chlorine. Some chlorine may likewise be added after ozonation to prevent reinfestation; about one-third as much suffices. To generate ozone, dry air or oxygen is passed through a high-voltage electrical field. Ozone drinking-water treatment in Andover, Massachusetts successfully controlled the effects of algae blooms and eliminated water quality problems. Potential THM formation was reduced by an average of 75 percent. H₂O₂ and O₃ are relatively inexpensive; moreover, the only byproducts are pure oxygen and hydrogen, so no one can reap a big immediate profit on their disposal. (Hydrogen is a potential major energy source for electricity generation and for zero-emission vehicles. France and Germany, wiser and less controlled by the chemical industry, now chlorinate water only in emergencies. Other Water Pollution Problems EPA tests have shown that in the water we drink, over 2,100 organic and inorganic chemicals including pesticides, heavy metals, radon, radioactive particles and parasitic organisms including cryptosporidium have been identified; 156 of them are pure carcinogens. (In 1993, cryptosporidium killed more than 100 and infected over 400,000.) Of those, 26 are tumor promoting: they can make an existing tumor grow. Exposure to cryptosporidium in people with lowered gastrointestinal immune function could lead to chronic GI infection. Other examples include recurring cases of Legionnaire's disease, a pneumonia caused by Legionella pneumophila, which may lurk in hot water supplies. A public notice recently issued in Washington, D.C. warned that a high level of bacteria in the (chlorinated, fluoridated city system) water made it unsafe for dialysis patients, AIDS patients, organ transplant patients, the elderly and infants. Water contamination is often worst in small communities that can't afford proper treatment; the EPA has not released this information. Testimony to hearings of the House Committee on Government Reform and Oversight revealed Pfiesteria outbreaks among people drinking chlorinated water. The organism, which kills fish, sickens some people; they get sick from drinking the water, not from eating infected seafood. The EPA's Robert Perciasepe said, in written testimony, "Any new public health policy on this issue needs to consider reduction of nitrogen and phosphorus pollution in our waters." The EPA called 129 contaminants found in water supplies "dangerous" singly, let alone in combination. Pesticides and other toxic wastes run off farmlands and pastures or are dumped by factories, pollute rivers and seep into underground aquifers. Aptly called "biocides" by Russell Jaffe, MD, PhD, pesticides are designed to end life; few have been shown to be safe. A bill passed by the U.S. House of Representatives would require managers of municipal water systems to tell customers what contaminants have been found in local drinking water. But government laboratories test only for bacterial content and a few of the major inorganic toxins such as lead and arsenic. The EPA depends on producers of pesticides to test their safety: the wolf guards the hen house. Further, one poison is tested at a time; synergistic effects of combinations, potentially far worse, are ignored. So, for a complete water test one must consult a private laboratory.